

**CLAIMS:**

1. A fluorescent lamp circuit, comprising:
  - a power source selectively arranged to deliver power to a load;
  - a first fluorescent lamp L1 coupled to the power source;
  - a second fluorescent lamp L2 coupled in series to the first fluorescent
  - 5 lamp L1 and coupled to the power source; and
  - a striation correction circuit coupled to the power source and coupled to the first L1 and second L2 fluorescent lamps that is arranged to apply a first striation correction current to the first fluorescent lamp L1 and a second striation correction current to the second fluorescent lamp L2 wherein a first voltage appearing across the
  - 10 first fluorescent tube L1 resulting from the first striation correction current is substantially similar in magnitude and having inverted polarity with respect to a second voltage across the second fluorescent tube L2 resulting from the second striation correction current.
- 15 2. The circuit of claim 1 further comprising an end-of-life detection circuit coupled to the first L1 and second L2 fluorescent lamps.
3. The circuit of claim 2 wherein the end-of-life detection circuit comprises a capacitor C1 arranged in series with the first L1 and second L2 fluorescent lamps to
- 20 sense voltage changes in a closed-loop circuit with the power source 310 and the first L1 and second L2 fluorescent lamps.
4. The circuit of claim 3 wherein the end-of-life detection circuit further comprises a current sense transformer T5.
- 25 5. The circuit of claim 1 wherein the striation correction circuit comprises a first lamp correction circuit for generating the first striation correction current in the first fluorescent lamp L1 and a second lamp correction circuit for generating the second striation correction current in the second fluorescent lamp L2.

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6. The circuit of claim 5 wherein the first lamp correction circuit is arranged in parallel with the first lamp L1 and the second lamp correction circuit is arranged in parallel with the second lamp L2 and wherein the first and second lamp circuits are in series.

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7. The circuit of claim 6 wherein the first lamp correction circuit and the second lamp correction circuit each comprise a diode in series with a resistor and wherein the first and second lamp correction circuits are arranged symmetrically with the diodes opposing one another.

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8. The circuit of claim 5 wherein the first lamp correction circuit and the second lamp correction circuit comprises at least one transistor.

9. The circuit of claim 1 wherein the power source is a fluorescent lamp ballast 310 coupled to the first L1 and second L2 fluorescent lamps through an isolation transformer T4.

10. The circuit of claim 1 wherein the fluorescent lamp circuit comprises at least one additional pair of fluorescent lamps and at least one additional corresponding striation correction circuit all coupled to the power source and wherein the at least one additional pair of fluorescent lamps are arranged in series with the first L1 and second L2 fluorescent lamps.

11. The circuit of claim 1 wherein the first and second striation correction currents are DC signals and wherein the first striation current is opposite in sense to the second striation current.

12. A method of reducing striations in a fluorescent lighting system, comprising:  
generating a first striation correction current and a second striation correction current 510;

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applying the first striation correction current to a first fluorescent lamp 520; and

applying the second striation correction current to a second fluorescent lamp L2 wherein the first fluorescent lamp L1 and the second fluorescent lamp L2 are coupled in series and wherein a first voltage appearing across the first fluorescent lamp L1 resulting from the first striation correction current is substantially similar in magnitude and having inverted polarity with respect to a second voltage appearing across the second fluorescent lamp L2 resulting from the second striation correction current 530.

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13. The method of claim 12 further comprising:  
sensing a voltage change in the fluorescent lighting circuit indicative of a fluorescent tube end-of-life condition wherein an end-of-life detection circuit is coupled to the first L1 and second fluorescent lamps L2.

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14. The method of claim 13 wherein the end-of-life detection circuit comprises a capacitor C1 arranged in series with the first L1 and second L2 fluorescent lamps.

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15. The method of claim 12 wherein the striation correction circuit comprises a first lamp correction circuit for generating the first striation correction current in the first fluorescent lamp L1 and a second lamp correction circuit for generating the second striation correction current in the second fluorescent lamp L2.

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16. The method of claim 15 wherein the first lamp correction circuit is arranged in parallel with the first lamp L1 and the second lamp correction circuit is arranged in parallel with the second lamp L2 and wherein the first and second lamp correction circuits are in series.

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17. The method of claim 16 wherein the first lamp correction circuit and the second lamp correction circuit each comprise a diode in series with a resistor and

wherein the first and second lamp correction circuits are arranged symmetrically with the diodes opposing one another.

18. The method of claim 16 wherein the first lamp correction circuit and the  
5 second lamp correction circuit are comprised of at least one component selected from the group consisting of a transistor, a resistor, a diode, a capacitor and an inductor.

19. The method of claim 12 wherein the fluorescent lamp circuit comprises  
at least one additional pair of fluorescent lamps and at least one additional  
10 corresponding striation correction circuit all coupled to the power source and wherein the at least one additional pair of fluorescent lamps are arranged in series with the first L1 and second L2 fluorescent lamps.

20. A system for reducing striations in a multi-tube fluorescent lamp  
15 assembly, comprising:

means for generating a first striation correction current and a second  
striation correction current;

means for applying the first striation correction current to a first  
fluorescent lamp L1;

20 means for applying the second striation correction current to a second  
fluorescent lamp L1; and,

wherein the first fluorescent lamp L1 and the second fluorescent lamp  
L2 are coupled in series and wherein a first voltage appearing across the first  
fluorescent lamp L1 resulting from the first striation correction current is substantially  
25 equal in magnitude and having inverted polarity with respect to a second voltage  
appearing across the second fluorescent lamp L2 resulting from the second striation  
correction current.